## ONR Prob/Stats Newsletter April – 1999

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#### 1. Contact Information

Please note the following contact information for the ONR Prob/Stats program:

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### 2. Purpose

The purpose of this newsletter is to inform Principal Investigators and other interested parties of upcoming events, transition opportunities, accomplishments, and general information regarding the ONR Probability and Statistics Program. It will be published in October, January, April and July. If you want your name removed from the mailing list, just send an email

### 3. Upcoming Events – Conferences

The following is a list of upcoming conferences where ONR-funded research will be presented in invited sessions.

A. Interface '99 – Schaumberg, Illinois - June 9 – 12, 1999 http://www.math.niu.edu/Interface99

Feature Detection in Spatial Point Processes with Application to Minefield Detection Adrian Raftery, University of Washington

Probabilistic Methods in Image Analysis with Applications in Target Recognition

Alan Willsky, Massachusetts Institute of Technology

Statistical Learning and Coarse-to-fine Object Detection

Donald Geman, University of Massachusetts

There will also be contributed papers describing ONR research in minefield detection.

B. Joint Statistical (JSM) - Baltimore - August 8 – 12, 1999

### http://www.amstat.org/meetings/jsm/1999/index.html

Optimizing mine classification performance

Carey Priebe, Johns Hopkins University

Statistical Methods in DoD Minefield Detection Systems

Robert Muise, NSWCDD

A morphological detector for locating mines and minelike objects in heavily cluttered multispectral aerial images,

John Goutsias, Johns Hopkins University

Detecting minefields and other features in spatial point processes via simulation-based methods. Daniel Walsh and Adrian E. Raftery, University of Washington

# 1. Advertising for the Prob/Stats program

The ONR Public Affairs office has a publication called Tip Off. This is a monthly news release of science and technology news that is sent to science writers and journalists. When you have a newsworthy accomplishment, please send a short summary. These will be forwarded to Public Affairs and will also be included in the newsletter. These accomplishments will increase program marketability and are an excellent way to showcase your work. See the item below that describes John Goutsias' work in mine detection that was picked up by a London paper and Newsweek.

As another way of marketing the Prob/Stats program, the Website (http://www.onr.navy.mil/sci\_tech/information/onrpgabm.htm) for the program is under revision. It will contain links to Websites for all of the ONR-funded PI's. Any others who want to include links to their sites or who would be willing to link to the ONR Prob/Stats site, please let me know. A database that contains information (e.g, title, author, abstract, etc.) about papers published with ONR support will soon be on-line and will have limited search capabilities.

#### 2. Mine work

ONR has several research thrusts called 'spikes'. S&T funded by ONR should support these spikes. One of the spikes is called Mine Countermeasures or MCM. For those of you who are working in this area, this is a great opportunity to have your work transitioned. They are looking for basic research that can be applied to MCM. If you have algorithms that can transition to this spike or would like further information, please let me know

# 6. Mind Detection Highlight

John Goutsias, Johns Hopkins University, has been working on developing tools for the detection of minelike objects in multi-spectral images. As you can see from the papers that will be presented at the Interface and at the JSM, ONR is supporting other researchers (Noel Cressie, Adrian Raftery, Alan Willsky, Carey Priebe) in this area. This work got a lot of visibility in the press and was also showcased in an ONR briefing to Congress. You can access the article at http://www.jhu.edu/news\_info/news/. The publication date for a Newsweek article on this work is 21 June.

7. On April 20, I attended a briefing on a DARPA program called Joint Force Air Component Commander (JFACC), "Agile Control of Military Operations". You can get information at http://www.darpa.mil/iso/jfacc/. Those who are working in the area of Command and Control, control theory or information warfare can obtain information regarding DoD needs and possible transitions to this program. I will be contacting the JFACC Program Manager to set up a collaborative relationship. Let me know if you are interested.

# 8. Suggestions

If you have any suggestions for the ONR Prob/Stats program or any accomplishments, transitions, announcements, or other interesting newsworthy information, please send them to me.